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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/053,396 | 01/17/2002 | Rudolf J. Dams | 56313US009 | 1281 |

32692 7590 12/23/2005

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| EXAMINER | |
|---|---|
| COSTALES, SHRUTI S | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1714 | |

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/053,396 | DAMS, RUDOLF J. | |
| | Examiner | Art Unit | |
| | Shruti S. Costales | 1714 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *04 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/11/05 & 9/6/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. All outstanding rejections and objections except for those described below are overcome by applicants' amendment filed October 4, 2005. It is to be noted that the applicant filed a response on September 6, 2005 to the office action mailed on March 3, 2005, wherein this response included a non-compliant amendment and applicant's remarks. The applicant responded to the non-compliant amendment by filing the amendment to the claims with correct status identifiers on October 4, 2005. Therefore, when referring to amendments to the claims, the Examiner is hereinafter referring to the October 4, 2005 communication and when referring to the remarks, the Examiner is hereinafter referring to the September 6, 2005 communication.

2. Upon consideration applicant's arguments, the rejections set forth in the action mailed March 3, 2005 have been reconsidered and the following new grounds of rejection have been set forth below in paragraphs 7-12. Accordingly, the following action is **NON-FINAL.**

### *Claim Rejections - 35 USC § 102*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kistner et al. (U.S. Patent Number 5,980,992), hereinafter referred to as Kistner, in view of the evidence set forth in the *Polymer Science Dictionary* by Mark Alger (1997).

The rejection is adequately set forth in paragraph 9 of the office action mailed March 3, 2005 and is herein incorporated by reference.

5. Claims 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Dams et al. (U.S. Patent Number 5,276,175), hereinafter referred to as Dams.

The rejection is adequately set forth in paragraph 10 of the office action mailed March 3, 2005 and is herein incorporated by reference.

6. Claims 1-11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuwamura et al. (U.S. Patent Number 4,886,862), hereinafter referred to as Kuwamura.

The rejection is adequately set forth in paragraph 11 of the office action mailed March 3, 2005 and is herein incorporated by reference.

***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of U.S. Patent Number 6,649,272.

The rejection is adequately set forth in paragraphs 6-7 of the office action mailed March 3, 2005 and is herein incorporated by reference.

*New Obviousness-type Double Patenting Rejection A –*

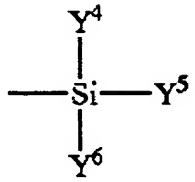
9. Claim 17 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/053,001, published as U.S. Pre-Grant Publication Number 2003/0168783, which was cited by the applicant on the PTO-1449 submitted on April 11, 2005. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Claim 1of the '001 copending application recites a water soluble or water dispersible fluorochemical silane represented by the general formula:

$$X\text{-}M^{f}_{n}M^{h}_{m}M^{a}_{r}\text{-}G \qquad (I)$$

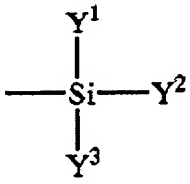
wherein X represents the residue of an initiator or hydrogen, $M^f$ represents units derived from one or more fluorinated monomers, $M^h$ represents units derived from one or more non-fluorinated monomers, $M^a$ represents units having a silyl group represented by the formula

(II)



wherein each of $Y^4$, $Y^5$ and $Y^6$ independently represents an alkyl group, an aryl group or a hydrolyzable group, G is a monovalent organic group comprising the residue of a chain transfer agent, n represents a value of 1 to 100; m represents a value of 0 to 100, and r represents a value of 0 to 100, and n+m+r is at least 2, with the proviso that at least one of the following conditions is fulfilled: (a) G contains a silyl group of the formula:

(III)

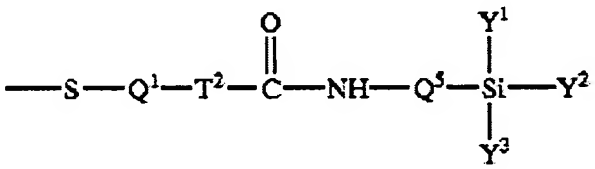


wherein $Y^1$, $Y^2$ and $Y^3$ each independently represents an alkyl group, an aryl group or a hydrolyzable group and at least one of $Y^1$, $Y^2$ and $Y^3$ represents a hydrolyzable water solubilizing group or (b) r is at least 1 and at least one of $Y^4$, $Y^5$ and $Y^6$ represents a hydrolyzable water solubilizing group.

The difference between the presently cited claims and claim 1 of the '001 copending application is the requirement that G is further specified.

The specific definition of G shown below in formula X is encompassed within the broad definition of G in claim 1 of the '001 copending application, wherein as evidence refer to the specification of the '001 copending application:

X



wherein $Q^1$ and $Q^5$ each independently represents an organic divalent linking group, $T^2$ represents O or NR with R being a hydrogen or an aryl or a $C_1$-$C_4$ alkyl group, $Y^1$, $Y^2$ and $Y^3$ are as defined above and at least one of $Y^1$, $Y^2$ and $Y^3$ represents a hydrolysable water solubilizing group (Page 7, paragraphs [0072]-[0073]). Applicants attention is drawn to M.P.E.P. § 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F. 2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (Emphasis Added). *In re Vogel*, 422 F. 2d 438, 164 USPQ 619, 622 (CCPA 1970).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claim 17 is directed to an invention not patentably distinct from claim 1 of the commonly assigned copending application, namely 10/053,001. Specifically, refer to the discussion above in paragraph 9.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned copending Application No. 10/053,001, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

*New Obviousness-type Double Patenting Rejection B –*

11. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 10/745,003, published as U.S. Pre-Grant Publication Number

2005/0136264. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Claim 4 of the copending application '003, which depends from claim 1 and therefore includes all the limitation of claim 1, recites a dilutable, non-aqueous concentrate comprising a mixture of (a) at least one fluorinated oligomeric silane of the formula

$$A\text{-}M_n^f M_m^h M_r^a\text{-}G$$

wherein A is hydrogen or a residue of an initiating species, $M^f$ represents units derived from one or more fluorinated monomers, $M^h$ represents units derived from one or more non-fluorinated monomers, $M^a$ represents units derived from one or more non-fluorinated monomers having a silyl group, $SiY_3$ where Y is a hydrolyzable group, and G is a residue of a chain transfer agent of the formula --S-Q-$Y_3$ in which Y is a hydrolyzable group and Q is an organic divalent linking group, n is an integer from 1 to 100, m is an integer from 0 to 100, and r is an integer from 0 to 100, and (b) at least one surfactant, and further comprises one or both of at least one organic cosolvent and at least one additive.

The difference between claim 4 of the '003 copending application and the presently cited claim is the requirement that the cosolvent is added in a major amount and the fluorochemical oligomer is present in a specified amount.

Claim 4 of the copending application encompasses specific amounts of organic solvents added in addition to the fluorochemical oligomer, wherein as evidence paragraphs [0072]-[0075] of the '003 copending application discloses organic solvents

added in amounts up to about 75 wt%, which intrinsically is a major amount, and wherein paragraph [0095] discloses that the amount of the concentrate, which includes the fluorochemical oligomer, added to a composition is about 0.05 wt% to about 10 wt%. Applicants attention is drawn to M.P.E.P. § 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F. 2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (Emphasis Added). *In re Vogel*, 422 F. 2d 438, 164 USPQ 619, 622 (CCPA 1970).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claim 1 is directed to an invention not patentably distinct from claim 4 of the commonly assigned copending application, namely 10/745,003. Specifically, refer to the discussion above in paragraph 12.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned copending Application No. 10/745,003, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can,

under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

***Response to Arguments***

13. Applicants' arguments filed on September 6, 2005 have been fully considered but they are not persuasive.

Specifically, applicants argue that (i) Kistner's fluorochemical silane does not contain repeating units and it does not contain non-fluorinated monomers or monomers with silyl group, (ii) Dams' compositions are intended for use on fibrous substances, Dams does not refer to patentability of oligomeric silanes, and Dams is silent regarding the preparation of solvent and oligomer, and (iii) Kuwamura's fluorochemical is present in an amount of about 50%.

With respect to argument (i), Kistner discloses that its fluorochemical compound, shown in formula I (Col. 6) includes a fluorochemical oligomer having pendant fluoroaliphatic groups, pendant organic-solubilizing groups, and pendant groups reacted with an epoxy silane (Col. 8, lines 10-67). Further, The oligomer in formula I of Kistner shown at the top of Col. 6 and shown above inherently contains a free radical initiator as

evidenced by the reference to "free-radical oligomerization" at Col. 10, line 1. Although this "free-radical oligomerization" is described in the context of an oligomer of formula II in Col. 9, nevertheless, it appears that "free-radical oligomerization" is the process used by Kistner to oligomerize monomers. It is therefore the Examiner's position that Kistner's fluorochemical silane does contain repeating units, non-fluorinated monomers, and monomers with silyl groups.

With respect to argument (ii), the intended use of the present claims is not relevant as none of the presently pending claims specifically exclude fibrous substrates. Further, Dams discloses a fluorochemical oligomer of the formula shown at the bottom of Col. 14, wherein this formula corresponds to the formula presently claimed. "L" in the formula of Dams corresponds to G in the present claims which is an end-capping agent or chain transfer agent residue including *silanes* (Col. 17, lines 52-67 and Col. 18, lines 1-26). The specific fluorinated portion has the formula shown in the present claims (Col. 7, lines 64-68 and more specifically Col. 8, lines 25-27). The non-fluorinated portion of the oligomer in the present claims corresponds to $R_5$, $R_6$, and $R_7$ in the Dams formula (Col. 12, lines 52-68; and Cols. 13 and 14). The degree of oligomerization or polymerization of each portion of the fluorochemical oligomer is in the range of about 2-40 (Col. 4, lines 55-60 and Col. 5, lines 49-52). Finally, at least one of the silyl group substituents contains a hydrolyzable group (Col.18, lines 22-23). It is to be noted that present claims 14-17 do not require a solvent. Therefore, it is the Examiner's position that Dams does refer to the patentability of oligomeric silanes.

With respect to argument (iii), Kuwamura discloses a fluorochemical composition comprising an organic solvent and a fluorochemical oligomer (Col. 2, lines 1-8) where the solvent is present in a major amount (Col. 7, lines 55-68) and the fluorochemical oligomer is dispersed or dissolved in said organic solvent in an amount of at least about 0.02% by weight (Col. 7, lines 55-68). Therefore it is the Examiner's position that Kuwamura discloses amounts of fluorochemical that corresponds to that presently claimed.

***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shruti S. Costales whose telephone number is (571) 272-8389. The examiner can normally be reached on Monday - Friday, 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SSC
Shruti S. Costales
December 19, 2005

Vasu Jagannathan
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TECHNOLOGY CENTER 1700